



INDONESIA: RECENT VOLCANIC AND SEISMIC ACTIVITIES

Summary

- As of April 12, 2006, the Ministry of Energy and Mineral Resources' Center of Volcanology and Geological Hazard Mitigation (CVGHM) has raised alert levels to show increased danger around three of Indonesia's 129 active volcanoes.
- The CVGHM raised the alert level for Mt. Merapi, near Yogyakarta in Central Java, to Alert Level 3, Code Orange, Ready to Erupt ("Siaga"). The CVGHM classifies Mt. Merapi as a "high risk" volcano because of its history of eruptions.
- The CVGHM raised the alert level for Mt. Semeru in East Java and Mt. Dieng in Central Java to Alert Level 2, Code Yellow, Danger ("Waspada").
- Information on the status of Indonesia's volcanoes can be accessed at the CVGHM website. (<http://www.vsi.esdm.go.id/portal/html/index.php>)

Indonesian Volcano Alert Levels

There is no single, internationally accepted volcano warning system. However, most nations have adopted multi-stage systems employing numerical and/or color-coded levels of alert. Alert stages typically range from the lowest level, characterized by normal background levels of activity (e.g., small and occasional earthquakes, fumarolic activity, low levels of ground deformation) to a highest level, typically indicating that a hazardous eruption is imminent or in progress.

The CVGHM utilizes a system with four levels of alert:

- Alert 1 (Code Green – Active Normal) - No activity based on monitoring visual seismicity and other events. No eruptions in the foreseeable future.
- Alert 2 (Code Yellow – Danger - "Waspada") - Increased seismicity and other volcanic events such as gases. Visual changes around the crater and magmatic,

tectonic or hydrothermal disturbances. Eruption is not imminent, however due to the increased danger, local officials should prepare for a disaster.

- Alert 3 (Code Orange – Ready to Erupt - “Siaga”) – Rapid rise in seismicity accompanied by obvious visual changes in the crater. Large eruption possible within one-to-two weeks, depending on data analysis.
- Alert 4 (Code Red – Active Danger - “Awat”) – Begin evacuation due to small eruptions and/or potential for a large eruption spewing ash, lava and gases. A major eruption is imminent, possibly within 24 hours.

It is important to note that alert levels do not specify the size and explosiveness of anticipated eruptions. These factors vary widely from volcano to volcano and even at the same volcano. Volcanologists typically use the history of eruptions at a volcano, or at similar volcanoes worldwide, to forecast the likely size of anticipated eruptions.

Although the public and the media tend to focus on large eruptions, most volcanic activity leads to no eruption at all or to small or middle-sized eruptions. However, even small eruptions can disrupt the lives of people living near volcanoes, and cause problems for aircraft and sensitive facilities downwind. Clouds of volcanic ash can damage aircraft, and even light ashfall can close airports and adversely affect people with respiratory problems.

Mt. Merapi

As of April 12, the CVGMH and Merapi Volcano Observatory (MVO) raised the danger warning for Mt. Merapi to Alert Level 3 – Code Orange, Ready to Erupt (“Siaga”). The 2,968-meter (9,737 feet) Mt. Merapi is about 400 kilometers (250 miles) east of Jakarta or 27 km (17 miles) from Yogyakarta. Volcanologists classify Mt Merapi as a “high-risk” volcano due to its history of eruptions. Visual observations on April 11 showed the top of the volcano cracked and 18 lava avalanches, with sulfurous gases rising about 100 meters above the crater.

BPPTK and MVO have urged tourists and others not to climb Mt. Merapi and advised people to suspend activities in rivers on the upper part of the mountain. They also advised sand miners to stop their activities and called on local governments to be ready for a volcanic eruption.

Mt. Semeru

Effective March 29, the East Java Office of Energy and Mineral Resources and Semeru Volcanic Observatory increased the danger level of Mt. Semeru to Alert Level 2 (Code Yellow – Danger). The East Java Office of Energy and Mineral

Resources urged tourists and others not to climb Mt. Semeru higher than 1 kilometer from the top.

Visual observations showed increased sulfurous gases 50-75 meters from the crater and numerous gas explosions rising 300-600 meters up from the crater. In March 2006, ashfall from Mt. Semeru was reported in Malang Raya (90 km/56 miles from Surabaya) and Blitar (120 km/ 75 miles South West of Surabaya).

Monitoring Indonesia's Volcanoes on the Internet

Information on the status of Indonesia's volcanoes can be accessed at the CVGHM website under the following links:

<http://www.vsi.esdm.go.id/portal/html/index.php>

http://www.vsi.esdm.go.id/general_info/index.htm

The following CVGHM web page gives the most up-to-date information available on Indonesian volcanic activity and current alert levels:

<http://www.vsi.esdm.go.id/portal/html/modules.php?op=modload&name=News&file=index&catid=&topic=3>

Additional information on worldwide volcanic activity, including in Indonesia, is available at the U.S. Geological Survey Volcano Hazards program website at the following address:

<http://volcanoes.usgs.gov/>